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Capt. W. H. Smyth, R.N., Vice-President, in the chair.

The nineteenth volume of the *Memoirs* is now ready for delivery. The price is 6*s.* to Fellows of the Society, and 12*s.* to the Public. Vol. X. of the *Monthly Notices*, which contains the Observations, shorter and less abstruse Memoirs, Abstracts, Lectures, &c., is *given* to purchasers of the 4to. volume.

The two publications are supplementary to each other, and are to be considered as parts of the same series. They contain scarcely anything in common, except the Annual Report, and between them include a complete account of the proceedings of the Society during the year. The low price of this volume is due to the liberality of the Board of Admiralty, who have paid the expense of computing and printing "Fallows' Observations." The Astronomer Royal has given the necessary instructions for performing this work, and discharged the duties of Editor.

"*Memoirs, Astronomical and Geodesical*, by Mr. Maclear, Her Majesty's Astronomer at the Cape of Good Hope," forming part of the 4to. volume, No. XX., have been printed, and are ready for distribution. These memoirs have been printed principally at the expense of the Board of Admiralty. Gentlemen who wish to possess them before the publication of the volume should apply to the Council of the Royal Astronomical Society.

IRENE.

Discovery of Irene. By Mr. Hind.

"On May 19th, at $12^h\ 58^m$ mean time, I discovered another small planet near the star numbered 29490 in the reduced catalogue of the *Histoire Céleste.* A star a little north, and following Lalande's, is omitted upon Wölfer's chart (Hora xvi.), and my attention having been thereby directed to this part of the heavens some years since, I knew that an object so bright as the planet could not have escaped notice, and, accordingly, compared it at once with Lalande's star, with the aid of the wire-micrometer. At $16^h\ 39^m$ the new star followed L. 29490 by $8^s{\cdot}3$, and at $16^h\ 52^m$ the difference of right ascension was $7^s{\cdot}7$, quite sufficient to establish motion in one object. At $17^h\ 15^m$ the difference of right ascension was $6^s{\cdot}6$. The planetary nature of the stranger was, therefore, satisfactorily proved from 36^m interval; and a reference

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to the ephemerides of the newly-discovered planets, published in the *Nautical Almanac* and *Berliner Jahrbuch,* showed that all of them were differently situated, and that I had been fortunate enough to discover another new planet.

"Sir John Herschel has selected *Irene* for the name of this planet: the symbol to be a dove with olive-branch and star on head.

"At the time of discovery, the brightness of *Irene* was rather over that of a star of the ninth magnitude. Her light is very blue, and she appears to be surrounded with a faint nebulous envelope not perceptible about the stars in her vicinity."

Observations.

South Villa. Equatoreal. (MM. Bishop and Hind.)

1851.	Green. M.T.	R.A.	N.P.D.
	h m s	h m s	° ′ ″
May 19	13 9 36	16 4 9·61	103 23 36·3
21	11 15 39	16 2 14·16	103 26 23·1
23	11 13 48	16 0 13·67	103 29 42·9

Greenwich. Meridian Circle. (Astronomer Royal.)

1851.	Greenwich M.T.	R.A.	N.P.D.
	h m s	h m s	° ′ ″
May 28	11 31 38·3	15 55 15·16	103 39 10·0
29	26 44·2	54 16·87	41 15·2
30	21 51·1	53 19·64	43 23·2
31	16 58·6	52 22·77	45 40·0
June 2	11 7 15·7	50 31·38	50 24·1
4	10 57 36·6	15 48 43·88	103 55 21·1

Not corrected for parallax.

Liverpool. Equatoreal. (Mr. Hartnup.)

1851.	Greenwich M.T.	R.A.	$\text{Log}\,\frac{p}{P}$	N.P.D.	$\text{Log}\,\frac{q}{P}$	Star of Comp.
	h m s	h m s		° ′ ″		
May 26	11 53 22·1	15 57 11·82	Mer.	103 35 14·1	−9·9624	γ Libræ
	12 33 14·3	10·21	+7·852	19·4	·9614	—
27	10 30 41·0	15 56 16·48	−8·136	103 37 4·2	·9586	—
	11 10 33·6	14·73	−7·830	8·8	·9615	—
	11 48 26·5	13·13	Mer.	13·3	·9626	—
28	10 37 45·1	15 55 17·14	−8·066	103 39 9·0	·9598	—
	11 11 38·9	15·86	−7·756	10·7	·9620	—
	11 45 32·3	14·33	+6·554	13·9	·9627	—
30	10 23 58·8	15 53 22·10	−8·086	103 43 21·5	·9597	—
	10 58 52·2	20·43	−7·807	25·2	·9621	—
	11 33 45·9	18·95	Mer.	27·1	·9629	—
31	10 19 5·5	15 52 25·25	−8·086	103 45 34·5	·9598	—
	10 53 59·1	23·74	−7·806	38·4	·9622	—
	11 28 52·7	22·24	Mer.	41·0	−9·9630	—

The observations are corrected for refraction. The corrections to be applied

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for parallax in time and arc are represented by p and q. P is the equatoreal horizontal parallax.

The following is the assumed *mean* place of the star of comparison for 1851·0, derived from the Greenwich 12-year Catalogue:—

	R.A.	N.P.D.
	h m s	° ′ ″
γ Libræ	15 27 11·83	104 17 19·49

Cambridge. Northumberland Equatoreal. (Professor Challis.)

	Green. M.T.	R.A.	Log $\frac{p}{P}$	N.P.D.	Log $\frac{q}{P}$	No. of Comps. R.A.	No. of Comps. N.P.D.	Star.
1851.	h m s	h m s		° ′ ″				
May 21	11 0 5·2	16 2 15·06	−8·076			5		(*a*)
	12 5 41·8	11·99		103 26 28·5	−9·9580	Mer.		
	12 17 58·3	11·92	+7·354	103 26 28·6	−9·9579	9	9	(*a*)

The star (*a*) is Bessel (Weisse), xvi. 38, and Weisse's place is adopted. Mr. Breen readily detected the planet by its blue colour.

Durham. Fraunhofer Equatoreal. (Professor Chevallier.)

	Greenwich M.T.	App. R.A.	Log $\frac{p}{P}$	App. N.P.D.	Log $\frac{q}{P}$	No. of Comps. R.A.	No. of Comps. N.P.D.	Set.
1851.	h m s	h m s		° ′ ″				
ay 22	11 53 0·6	16 1 12·17	−7·373	103 28 11·7	−9·9662	20	4	1
26	8 7·4	15 57 14·92	−7·838	35 12·1	9·9657	14	4	2
31	11 28 43·3	15 52 22·48	+5·...	103 45 39·3	−9·9672	18	6	3

Durham. Fraunhofer Equatoreal. (Mr. R. C. Carrington.)

	Greenwich M.T.	App. R.A.	Log $\frac{p}{P}$	App. N.P.D.	Log $\frac{q}{P}$	No. of Comps. R.A.	No. of Comps. N.P.D.	Set.
1851.	h m s	h m s		° ′ ″				
y 22	10 40 22·7	16 1 15·12	−8·168	103 28 5·0	−9·9620	12	4	1
26	11 0 56·8	15 57 15·07	−7·905	35 12·5	9·9654	21	7	2
28	10 22 22·6	55 18·73	−8·810	39 7·8	9·9633	24	8	3
	11 28 54·9	15·39	−7·207	10·9	9·9669	18	6	4
29	12 4 13·7	54 15·57	+7·730	41 18·6	9·9664	24	8	5
30	11 32 59·6	53 19·65	+5·000	43 25·8	9·9666	6	2	6
31	10 34 52·6	52 24·54	−7·922	45 35·2	9·9659	21	7	7
e 4	10 38 0·9	48 44·33	−7·644	55 16·5	9·9673	24	8	8
	11 11 34·3	43·14	+5·550	20·0	9·9678	15	5	9
5	10 26 11·4	15 47 52·16	−7·751	103 57 52·8	−9·9675	24	8	10

P is the Eq. Hor. Parallax in seconds of arc; p and q the required corrections in seconds of time and arc respectively.

Mean Places of Stars of Comparison.

h	h m s	° ′ ″	Set.
Weisse xv, 1144	15 59 51·85	103 32 2·1	1
— 1118	58 46·01	40 0·3	2, 3
48 Libræ	49 51·08	50 41·7	4 to 8, and 10
Weisse xv, 910	15 47 53·46	103 57 23·5	9

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By one transit the R.A. of Weisse xv, 1118 would seem to be more correctly . . . $45^{\mathrm{s}}{\cdot}20$. The stars used by Professor Chevallier were the same as Mr. Carrington's, on the same nights.

May 26. Sky very hazy.
28. Very favourable.
29. Much vapour. Objects furred and unsteady.
30. Two indifferent comparisons. Clouds interrupted.
June 4. A small star, 10th mag., very near the planet, s. p. Sky more or less foggy on this night also.
5. The planet s. p. of Weisse xv, 910, and very close to it. The result of this set should be good, as all circumstances were particularly favourable.

HAMBURG. (M. C. Rümker.)

1851.	Hamburg M.T. h m s	App. R.A. ° ′ ″	App. Decl. (not Corrected for Parallax.) ° ′ ″	
May 24	10 39 0·7	239 49 12·8	−13 31 36	
	11 51 26·2	48 23·6	30·2	Mer. Circle.
26	10 25 51·3	239 19 24·6	35 2·8	
	11 41 36·0	......	20·3	Mer. Circle.
27	10 16 13·3	239 4 44·1	36 59·8	
	11 36 40·8	3 50·8	75·2	Mer. Circle.
28	10 25 46·4	238 49 26·4	39 4·0	
	11 31 46·5	49 11·4	9·3	Mer. Circle.
30	13 26 42·6	238 19 7·7	43 30·2	
31	10 19 27·2	238 6 42·6	45 29·8	
	11 17 6·6	6 3·5	38·8	Mer. Circle.
June 1	10 16 22·0	237 52 42·2	−13 47 53·3	
	11 12 14·4	51 58·1	54·3	Mer. Circle.

Apparent Places of Compared Stars observed with Mer. Circle.

		R.A. h m s	° ′ ″
May 24	*a*	15 59 53·581	−13 32 3·9
31	*b*	58 46·839	40 1·5
	ψ Lib.	15 49 52·719	−13 50 43·7

Circular Elements.

By Mr. N. Pogson, Junior Assistant at Mr. Bishop's Observatory.

$r = 2{\cdot}45945$

	° ′		° ′
☊	83 37·71	I	10 42·36
Arg. of Lat. at Epoch	156 18·89		
Daily Motion in Orbit.........	15·695		

Epoch, May 19·54833

Mr. Pogson contributed an Ephemeris, which has been forwarded to several observatories for immediate use.